

SEQUENCE COMPARISON

polypeptide and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate hTP expression. The present sequence represents the human transporter protein of the invention.

XX SQ Sequence 465 AA;

Query Match 100.0%; Score 2485; DB 23; Length 465;
Best Local Similarity 100.0%; Pred. No. 2.4e-235;
Matches 465; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MGPKAFSPFLLRSQSGRVLVFLLLTLHLGNCVDKADDEDELTYNKTVLAPKIH 60
Db 1 MGPKAFSPFLLRSQSGRVLVFLLLTLHLGNCVDKADDEDELTYNKTVLAPKIH 60

Qy 61 EGDITQILNSLLQGYDNKLRPDIGVRPTVETDVVNSIGPVPINNEYTIDIIFAQTFW 120
Db 61 EGDITQILNSLLQGYDNKLRPDIGVRPTVETDVVNSIGPVPINNEYTIDIIFAQTFW 120

Qy 121 DSRLEKFNSTMKVLMNSNMVGIWIPOTFFRNSRKSDAHWITTPNRLIRWNGRVLYTL 180
Db 121 DSRLEKFNSTMKVLMNSNMVGIWIPOTFFRNSRKSDAHWITTPNRLIRWNGRVLYTL 180

Qy 181 RLTIINAECTYQLHNPMDHSCPLFESSGYGPKNEIEYKWKPSVEVADPKYRWLYQPAF 240
Db 181 RLTIINAECTYQLHNPMDHSCPLFESSGYGPKNEIEYKWKPSVEVADPKYRWLYQPAF 240

Qy 241 VGLRNSTEITHTISGDYVIMTIFDLSRRMGYFTIOTYIPICILTVVLSWVSWFNKDAVP 300
Db 241 VGLRNSTEITHTISGDYVIMTIFDLSRRMGYFTIOTYIPICILTVVLSWVSWFNKDAVP 300

Qy 301 ARTSLGITTVLTMTLSTIARKSLPKVSYTANDLFSVCFIFVFAALMEYGTLYFTSN 360
Db 301 ARTSLGITTVLTMTLSTIARKSLPKVSYTANDLFSVCFIFVFAALMEYGTLYFTSN 360

Qy 361 QKGTATKORKLNKASMTPLHPCSTLIPMNNISVPQEDDYGYQCLEGKDCASFCCFE 420
Db 361 QKGTATKORKLNKASMTPLHPCSTLIPMNNISVPQEDDYGYQCLEGKDCASFCCFE 420

Qy 421 DCRGTSWREGRIHRIARIKIDSYSRIFFTAFALNLYVWGYLYL 465
Db 421 DCRGTSWREGRIHRIARIKIDSYSRIFFTAFALNLYVWGYLYL 465

RESULT 2

ID ABB08234 standard; Protein: 465 AA.

XX AC ABB08234;

XX DT 18-JUN-2002 (first entry)

XX DE Human gamma-amino butyric acid (GABA) receptor subunit #1.

XX KW Human; GABA; gamma aminobutyric acid; receptor; gene therapy; protein.

XX OS Homo sapiens.

XX FH Key Location/Qualifiers

XX FT Misc-difference 257 /note- "Encoded by TAK"

XX PN WO200200720-A2.

XX PD 03-JAN-2002.

XX PF 27-JUN-2001; 2001WO-US20417.

XX PR 27-JUN-2000; 2000US-214083P.

XX PA (LEX1-) LEXICON GENETICS INC.

XX PI Walke DW, Friddle CJ, Mathur B, Turner CA;

XX DR WPI; 2002-139905/18.

XX N-PSDB; ABA96143, ABA96145.

XX PT New polynucleotides encoding novel human proteins sharing sequence similarity with membrane receptors e.g. gamma aminobutyric acid receptors, for generating primers and probes used to identify drug targets.

XX PS Claim 1; Page 35-37; 38pp; English.

XX CC The sequence represents a novel human polypeptide having sequence similarity with gamma aminobutyric acid (GABA) receptors. The invention relates to novel human protein (NRP) encoding sequence, where the protein is a human gamma aminobutyric acid receptor. The sequences may have a use in gene therapy. The NRP polynucleotide sequences that encode NRP subunits, when knocked out provide a method for:

CC (i) identifying phenotypic expression of the particular gene as well as assigning function to previously unknown genes,

CC (ii) identifying a coding sequence and mapping a unique gene to a particular chromosome; and

CC (iii) identifying biologically relevant splice junctions.

CC The NRP polynucleotide sequences are useful:

CC (i) in gene therapy techniques for the modulation of NRP expression;

CC (ii) for detecting mutant NRPs or inappropriately expressed NRPs for the diagnosis of disease;

CC (iii) for screening drugs effective in treatment of symptomatic or phenotypic manifestations of perturbing the normal function of NRP in the body.

CC The sequences are also useful for identifying mutations associated with a particular disease and also as a prognostic or diagnostic assay. The nucleic acid molecule is also useful in the molecular mutagenesis/ evolution of proteins that are at least partially encoded by the described new sequences.

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Db 301 ARTSLGITTVLTMTLSTIARKSLPKVSYTANDLFSVCFIFVFAALMEYGTLYFTSN 360

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Db 361 QKGTATKORKLNKASMTPLHPCSTLIPMNNISVPQEDDYGYQCLEGKDCASFCCFE 420

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Db 421 DCRGTSWREGRIHRIARIKIDSYSRIFFTAFALNLYVWGYLYL 465